

COMMUNICATION/NAVIGATION/DOPPLER  
(KC-135)

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1. **Objective.** As prescribed in AFI 38-201, *Determining Manpower Requirements*, formerly designated as AFR 8-10, this Air National Guard Manpower Standard (ANGMS) quantifies the full-time manpower required to accomplish the tasks described in the work center description for varying levels of workload volume.
2. **Authority.** Air National Guard (ANG) Regulation 66-14, *Maintenance Management*, 13 July 1988, contains policy and procedural guidance for the Communication/Navigation/Doppler work center. This ANGMS was developed in accordance with the functional review procedures depicted in AFPAM 38-208V1, *Air Force Management Engineering Program (MEP) Processes*, formerly AFR 25-5.
3. **Applicability.** This standard applies to all ANG KC-135 units with an established Communication/Navigation/Doppler function. This standard applies to peacetime operations only.
4. **Standard Data:**
  - a. Classification. Type III.
  - b. Approval Date. 25 November 1992.
  - c. Man-Hour Data Source. Operational Audit (historical records and technical estimate techniques).
  - d. Standard Man-Hour Equation.  $Y = 29.82 + 2.456X$ .
  - e. Workload Factor:
    - (1) Title: A Programmed Flying Hour.
    - (2) Definition: The average monthly programmed flying hours.
    - (3) Source of Count. USAF Program Document, Volume II, maintained by NGB/FM.
5. **Application Instructions:**
  - a. The valid man-hour range for this ANGMS is 486.63 through 813.16.
  - b. The application instructions are as follows:
    - (1) Obtain the most current workload factor value for the workload factor as outlined in paragraph 4e above.
    - (2) Substitute this value in the man-hour equation for X and divide the resulting man-hours by the current civilian Man-Hour Availability Factor to determine requirements.
    - (3) Use the man-hour break point table developed by HQ USAF/PRQE to determine the whole manpower requirements.
    - (4) On AF Form 1113, Manpower Requirement column, find the column which represents the number of whole manpower requirements. Read up and down the column and across to the Air Force Specialty Title column to determine requirements by Air Force Specialty Code.
6. **Statement of Conditions:**
  - a. There were no general conditions (environment, equipment, or facility) which had an impact on the development or application of this manpower standard.
  - b. There were no approved enhancements that impacted the man-hour equation for this manpower standard.

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**2 Attachments**  
**1. Work Center Description**  
**2. Standard Manpower Table**

## **WORK CENTER DESCRIPTION**

### **Communication/Navigation/Doppler (KC-135)**

#### **DIRECT:**

##### **1. ON-EQUIPMENT MAINTENANCE:**

**1.1. MAINTAINS AIRCRAFT SYSTEM AND COMPONENT.** Inspects, troubleshoots, and repairs on-equipment.

**1.1.1. MAINTAINS RADIO NAVIGATION SYSTEM.**

**1.1.2. MAINTAINS ULTRA HIGH FREQUENCY (UHF) COMMUNICATION SYSTEM RADIO.**

**1.1.3. MAINTAINS INTERPHONE SYSTEM.**

**1.1.4. MAINTAINS IDENTIFICATION FRIEND OR FOE (IFF) SYSTEM.**

**1.1.5. MAINTAINS RADAR NAVIGATION SYSTEM.**

**1.1.6. MAINTAINS MISCELLANEOUS COMMUNICATION EQUIPMENT.**

**1.1.7. MAINTAINS VERY HIGH FREQUENCY (VHF) COMMUNICATION SYSTEM.**

**1.1.8. MAINTAINS HIGH FREQUENCY (HF) COMMUNICATION SYSTEM.**

**1.1.9. MAINTAINS FUEL SAVINGS ADVISORY SYSTEM.**

**1.1.10. MAINTAINS KY 58 SECURE VOICE SYSTEM.**

**1.1.11. MAINTAINS TACAN UHF NAV SYSTEM.**

**1.1.12. MAINTAINS APN 218 DOPPLER SYSTEM.**

**1.1.13. MAINTAINS APN 69 RENDEZVOUS BEACON SYSTEM.**

**1.1.14. MAINTAINS RADIO ALTIMETER AL 101 SYSTEM.**

**1.1.15. MAINTAINS RADAR PRESSURE SYSTEM.**

**1.1.16. MAINTAINS AIRCRAFT WIRING, ALL SYSTEMS, AND THOSE ASSOCIATED WITH 1553 DATA BUSS.**

**1.2. PERFORMS INSPECTION.** Performs special, phase, and hourly aircraft inspection.

**1.2.1. PERFORMS SPECIAL INSPECTION.**

**1.2.2. PERFORMS PHASE/HOURLY INSPECTION.**

**2. OFF-EQUIPMENT MAINTENANCE:**

**2.1. MAINTAINS AIRCRAFT SYSTEM AND COMPONENT.** Inspects, troubleshoots, and repairs off-equipment.

**2.1.1. MAINTAINS RADIO NAVIGATION SYSTEM.**

**2.1.2. MAINTAINS UHF COMMUNICATION SYSTEM RADIO.**

**2.1.3. MAINTAINS INTERPHONE SYSTEM.**

**2.1.4. MAINTAINS IFF SYSTEM.**

**2.1.5. MAINTAINS RADAR NAVIGATION SYSTEM.**

**2.1.6. MAINTAINS MISCELLANEOUS COMMUNICATION EQUIPMENT.**

**2.1.7. MAINTAINS VHF COMMUNICATION SYSTEM.**

**2.1.8. MAINTAINS HF COMMUNICATION SYSTEM.**

**2.1.9. MAINTAINS TOW-TEAM WARNING SYSTEM.**

**2.1.10. MAINTAINS SECURE VOICE SYSTEM.**

**2.1.11. MAINTAINS TACAN SYSTEM.**

**2.1.12. MAINTAINS APN 218 DOPPLER SYSTEM.**

**2.1.13. MAINTAINS APN 69 RENDEZVOUS BEACON SYSTEM.**

**2.1.14. MAINTAINS RADIO ALTIMETER SYSTEM.**

**3. CATEGORY II TEST EQUIPMENT.** Inspects, troubleshoots, aligns, and calibrates test equipment.

**4. MAINTENANCE INSPECTION.** Performs in-process inspection on maintenance. Inspects maintenance performed for clearing Red "X" condition and documentation.

**5. PERIODIC MAINTENANCE OF AVIONICS EQUIPMENT IN BASE SUPPLY.** Performs periodic functional check or calibration of equipment stored in Base Supply to maintain shelf life and ensure serviceability before use.

**6. TIME COMPLIANCE TECHNICAL ORDER (TCTO).** Performs maintenance required on/off the aircraft in accordance with applicable TCTO and completes documentation.

**7. BENCH SET AND MOCK-UP.** Inspects, aligns, and repairs bench set mock-up and subsystem component.

**8. SHOP SUPPORT GENERAL.** Performs shop support general tasking.

**9. ASSISTANCE.** Assists other production work center in the performance of direct labor maintenance.

**10. GROUND HANDLING, SERVICING, AND RELATED TASK.** Performs ground handling, servicing, and related tasking.

**11. MODIFICATION PROGRAM.** Accomplishes approved modification.

**12. DEBRIEFING.** Conducts aircrew debriefing. Completes appropriate document.

**13. SPECIAL PLANNING OR SCHEDULING.** Performs planning or scheduling associated with preparation for unit training assembly, annual tour, mobility preparation, battle damage program, or other special program.

**14. MAINTENANCE AUTOMATED SYSTEM.** Makes input to Maintenance Management Information Control System/Core Automated Maintenance System. Retrieves, analyzes, and reconciles data.

**15. CONTINGENCY/EXERCISE.** Supports contingency/exercise.

**INDIRECT:** Indirect work involves those tasks that are not readily identifiable with the work center's specific product or service. The major categories of Standard Indirect work are Supervision, Administration, Meetings, Training, Supply, Equipment Maintenance, and Cleanup. See AFMS 00AA for the standard indirect description.

STANDARD MANPOWER TABLE											
WORK CENTER/FAC Communication/Navigation/Doppler FAC 24100C			APPLICABILITY MAN-HOUR RANGE  486.63 - 813.16								
AIR FORCE SPECIALTY TITLE	AFSC	GRADE	MANPOWER REQUIREMENT								
Aerospace Maintenance	451XX	CIV	1	1	1						
Comm/Nav Systems	455X2B	CIV	3	4	5						
TOTAL			4	5	6						
AIR FORCE SPECIALTY TITLE	AFSC	GRADE	MANPOWER REQUIREMENT								
TOTAL											